

## Massachusetts Department of Education

### **GOAL: IMPROVING TEACHER QUALITY**

#### **ACTIVITY: SUMMER CONTENT INSTITUTES IN MATHEMATICS AND SCIENCE**

**PURPOSE:** The Massachusetts Summer Content Institute Program is an intensive professional development program that supports local districts' efforts to raise the achievement of students in mathematics and science and technology/engineering. Each year, approximately 50 Content Institutes are sponsored by the Massachusetts Department of Education in partnership with school districts, educational collaborative, charter schools, colleges and universities, cultural institutions and professional development organizations.

The purpose of these discipline-specific content institutes is to strengthen the content knowledge teachers need for teaching the learning standards in the K-12 mathematics and science curriculum frameworks. The partnership requires presenters to possess strong mathematical content expertise and knowledge of the K-12 learning standards. The institutes focus on the concepts and skills that students are expected to know and understand in the state frameworks.

**SUMMARY:** The Massachusetts Content Institute Program began in 1996 and has always been offered at no charge to all K-12 Massachusetts educators. The first institutes were in mathematics and science and were funded with National Science Foundation State Systemic Initiative funds and in 1999 we expanded the program to address all disciplines. Adaptations to the institute program were made based on the amount of funding available; for example: earlier institutes provided over 100 hours of professional development (two full weeks in the summer and four to five full-day follow-up sessions during the school year to support teachers' implementation of the content in their classrooms working with students.) Currently, each content institute provides at least 45 hours of direct instruction and meets the requirements for recertification as an advanced course of academic study. In order to receive any Professional Development Points or college credits, participants are required to attend all sessions, take part in a pre- and post- assessments of content knowledge, and complete activities outside of class time that result in a project that demonstrates their learning and supports increased student learning of this content in the classroom.

**ACCOMPLISHMENTS:** Over 9,000 Massachusetts educators have participated in these institutes since 1996. Since 1998, we have required a pre/post test to assess the participants' content knowledge gain during the institute. Each year, an external evaluator has summarized the data. The majority of the institutes (93% in the year 2002) show statistically significant increases in the content knowledge of participants based on the pre/post test results.

**PLANS FOR 2003:** A competitive request for proposals was issued in December 2002 for Summer Content Institutes during the summer of 2003. Proposals will be read and reviewed during February and March 2003. The Department plans to fund approximately 10 content institutes in mathematics for elementary, middle school and high school teachers and 5 content institutes in science and technology/engineering for middle and high school teachers. Federal Eisenhower funds and USDOE Instructional Technology program funds will be used to support the 2003 Massachusetts content institute program. In addition we have partnered with the Massachusetts Energy Renewable Trust Fund to support an additional 5-6 institutes in science focusing on the topic of energy. At this time we are unsure of a funding source for 2004.